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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/829,529	04/22/2004	Scott Mordin Hoyte	137243	7322
<div>7590 04/05/2007 John S. Beulick Armstrong Teasdale LLP Suite 2600 One Metropolitan Square St. Louis, MO 63102</div>			<div>EXAMINER PHAM, THOMAS K</div> <div>ART UNIT 2121 PAPER NUMBER</div>	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/05/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/829,529	HOYTE ET AL.	
	Examiner	Art Unit	
	Thomas K. Pham	2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to arguments

1. This is in response to request for re-consideration filed 01/11/2007.
2. Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.

Quotations of U.S. Code Title 35

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim Rejections - 35 USC § 102

5. Claims 1-22 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,421,571 (“Spriggs”).

Regarding claim 1

Spriggs teaches the invention including a method for operating a facility having a plurality of equipment combinations, each equipment combination is operable interactively with at least one other equipment combination (see col. 2 lines 40-44), said method comprising: receiving, in real-time, for each of the plurality of equipment combinations, a plurality of measured process parameters (see col. 2 lines 45-56); determining at least one derived quantity from the plurality of measured process parameters (see col. 6 lines 55-61 “data acquisition”); and recommending a change to an equipment operation based on the measured process parameters and the derived quantities (see col. 14 lines 40-63).

Regarding claim 9

Spriggs teaches the invention including a method of analyzing the health of an equipment combination operating in a system that includes a plurality of other equipment combinations coupled to the equipment combination through conduits, and wherein the equipment combination includes a driver machine and a driven machine coupled in rotational synchronicity, said method comprises: receiving a measured process parameter associated with the driver machine (see col. 2 lines 45-56); receiving a measured process parameter associated with the driven machine (see col. 2 lines 45-56); receiving at least one measured process parameter associated with the plurality of other equipment combinations (see col. 2 lines 40-44); and deriving a process parameter quantity for at least one of the measured process parameter associated with the driver

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machine (see col. 6 lines 55-61 “data acquisition”) and the measured process parameter associated with the driven machine using the at least one measured process parameter associated with the plurality of other equipment combinations (see col. 14 lines 40-63).

Regarding claim 12

Spriggs teaches the invention including an integrated monitoring and control system for a plant wherein the plant has a plurality of equipment combinations that are operable interactively with each other and with individual equipment and wherein the combinations are operable to maintain selected plant operational conditions, said monitoring and control system comprising: a plurality of sensors operatively coupled to the equipment combinations, the plurality of sensors measuring process parameters for monitoring plant operation and assessing equipment combination condition, and providing output signals to said monitoring and control system (see col. 2 lines 45-56); a derived quantity layer communicatively coupled to a data bus, said derived quantity layer configured to: receive the measured process parameters (see col. 6 lines 55-61 “data acquisition”); and compute values for process parameters using the measured process parameters (see col. 11 lines 26-40); a rule set layer comprising at least one rule associated with at least some of the plurality of equipment combinations for determining a health of the equipment combination (see col. 11 lines 13-17); a recommendation layer for correlating the health of the equipment combination to at least one of a mitigating procedure, a maintaining procedure, and an operation procedure (see col. 14 lines 40-63).

Regarding claim 20

Spriggs teaches the invention including a computer program embodied on a computer readable medium for monitoring a plant, the plant having a plurality of equipment combinations operating

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interactively with each other and with individual equipment, said program comprising a code segment that controls a computer that receives a plurality of process parameters from sensors operatively coupled to the equipment combinations and individual equipment (see col. 2 lines 40-44) and then derives values for process parameters using the measured process parameters (see col. 6 lines 55-61 “data acquisition”); selects a rule from a set of rules comprising a plurality of commands that direct data analysis for each at least one of measured process parameter, a derived quantity, a plurality of measured process parameters and a derived quantities associated with an equipment combination (see col. 11 lines 13-17); recommends at least one of a mitigating procedure, a maintaining procedure, and an operation procedure (see col. 14 lines 40-63).

Regarding claim 2

Spriggs teaches wherein receiving, in real-time, for each of the plurality of equipment combinations and for the at least one individual piece of equipment further comprises receiving measured process parameters intermittently (see col. 9 lines 14-24).

Regarding claim 3

Spriggs teaches wherein determining at least one derived quantity comprises determining at least one derived quantity in real-time (see col. 6 lines 22-28).

Regarding claim 4

Spriggs teaches determining at least one derived quantity comprises: receiving measured process parameters associated with each of the derived quantities (see col. 6 lines 4-10); and determining each of the derived quantities using at least one rule from a rule set (see col. 11 lines 13-17).

Regarding claim 5

Spriggs teaches generating a rule set for an equipment combination using at least one of the measured process parameters, the derived quantities, a design specification for the equipment combination, a maintenance history of the equipment combination, and an expert database (see col. 9 lines 59-67).

Regarding claim 6

Spriggs teaches receiving technical information from an online interactive technical manual for at least one equipment combination (see col. 8 line 58 to col. 9 line 13).

Regarding claim 7

Spriggs teaches receiving measured process parameters from a remote input/output device (see col. 6 lines 55-61).

Regarding claim 8

Spriggs teaches receiving measured process parameters from a portable data logger (see col. 21 lines 63-67).

Regarding claim 10

Spriggs teaches deriving a process parameter quantity comprises deriving a process parameter quantity for a parameter that is not instrumented (see col. 8 lines 19-31).

Regarding claim 11

Spriggs teaches deriving a process parameter quantity comprises deriving a process parameter quantity for a parameter that is measured by at least one process sensor wherein the derived process parameter quantity is compared to a respective measured process parameter to verify an operability of the at least one sensor (see Col. 17 lines 40-56).

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Regarding claim 13

Spriggs teaches a communications layer for sampling said sensor output signals communicatively coupled to the output signals (see Col. 7 lines 7-12).

Regarding claim 14

Spriggs teaches communications layer is configured to receive network message packets of sensor output data (see col. 3 lines 31-38).

Regarding claim 15

Spriggs teaches communications layer is configured to preprocess said sensor output signals (see Col. 6 lines 8-10).

Regarding claim 16

Spriggs teaches a display layer configured to generate graphical representations of measured process parameters and derived quantities (see col. 14 line 65 to col. 15 line 12).

Regarding claim 17

Spriggs teaches display layer is configured to generate graphical representations of measured process parameters and derived quantities in at least one of real-time, historical values, and a combination of real-time and historical values (see col. 17 lines 39-55).

Regarding claim 18

Spriggs teaches wherein said mitigating procedure includes selectable control actions that are determined from a rule for at least one of facilitating reducing damage to equipment from an equipment failure, and maintaining the plant in an overall operational condition (see col. 26 lines 7-15).

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Regarding claim 19

Spriggs teaches wherein said maintenance procedure includes maintenance actions that are determined from a rule for at least one of facilitating reducing an equipment outage time, increasing an equipment combination availability, and facilitating reducing equipment combination failure (see col. 14 lines 20-39).

Regarding claim 21

Spriggs teaches directs the computer to receive a plurality of process parameters from a portable data collector (see col. 21 lines 63-67).

Regarding claim 22

Spriggs teaches directs the computer to receive a plurality of process parameters from an online process monitor (see col. 8 line 58 to col. 9 line 13).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner *Thomas Pham*; whose telephone number is (571) 272-3689, Monday - Friday from 7:30 AM - 4:00 PM EST or contact Supervisor *Mr. Anthony Knight* at (571) 272-3687.

Any response to this office action should be mailed to: **Commissioner for Patents, P.O. Box 1450, Alexandria VA 22313-1450**. Responses may also be faxed to the **official fax number (571) 273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thomas Pham
Primary Examiner



April 1, 2007